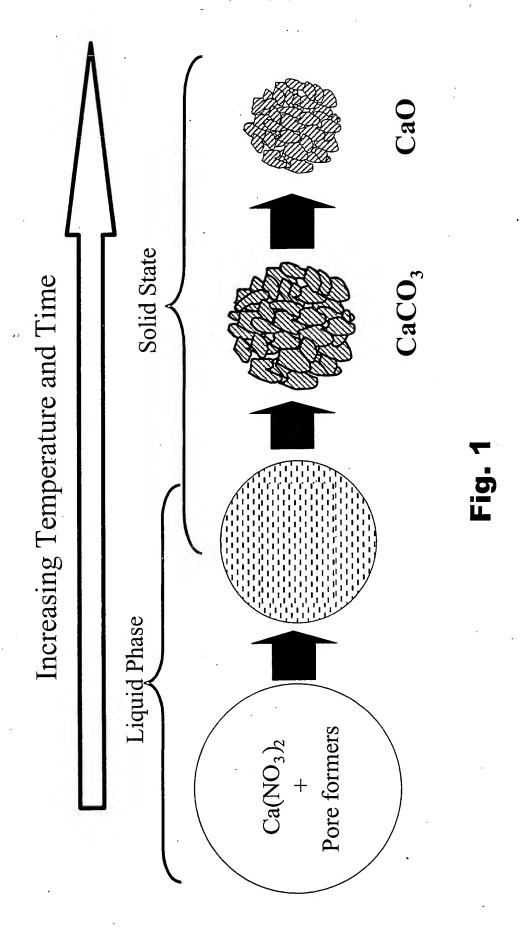
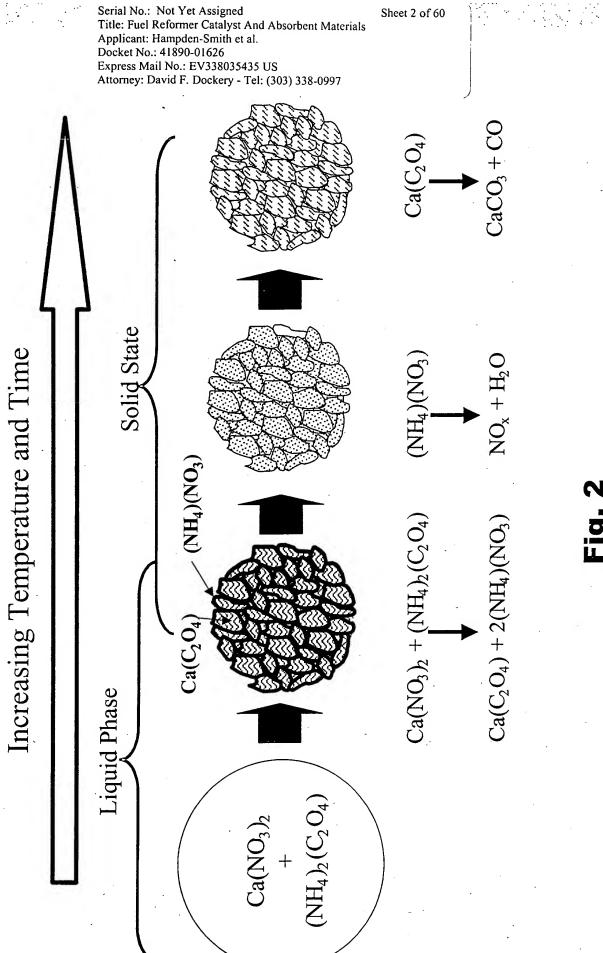
Serial No.: Not Yet Assigned Title: Fuel Reformer Catalyst And Absorbent Materials Applicant: Hampden-Smith et al. Docket No.: 41890-01626 Express Mail No.: EV338035435 US Attorney: David F. Dockery - Tel: (303) 338-0997



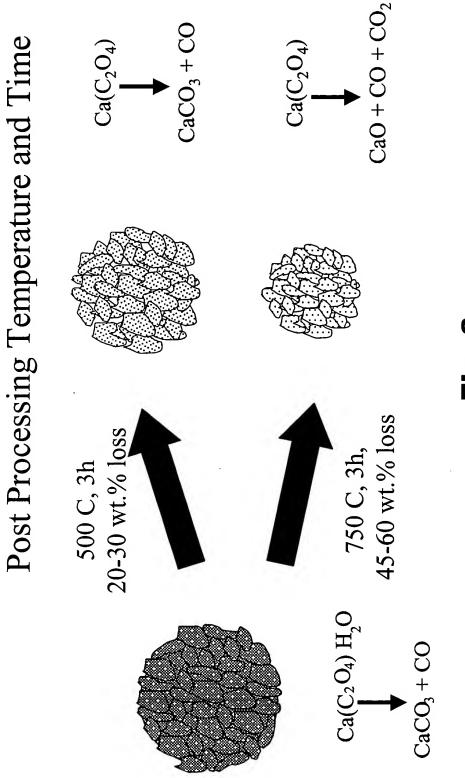


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Title: Fuel Reformer Catalyst And Absorbent Materials Applicant: Hampden-Smith et al.

Docket No.: 41890-01626 Express Mail No.: EV338035435 US

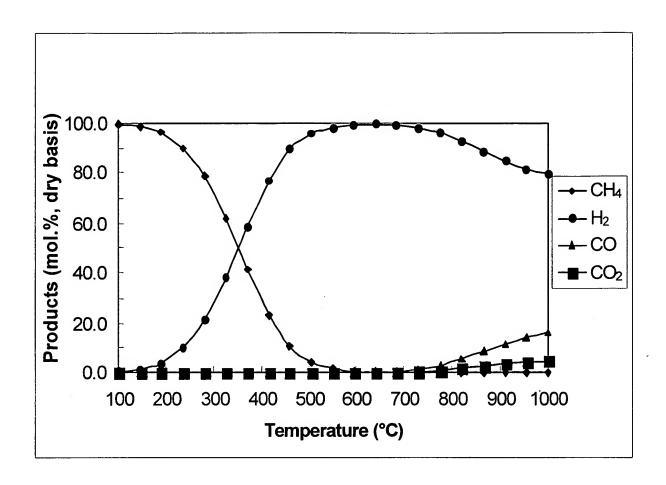


Fig. 4

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Applicant: Hampden-Smith et al. Docket No.: 41890-01626

Attorney: David F. Dockery - Tel: (303) 338-0997

Express Mail No.: EV338035435 US

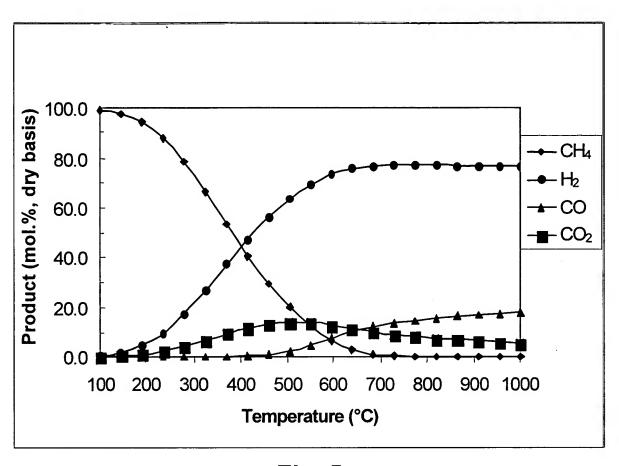


Fig. 5

Serial No.: Not Yet Assigned Sheet 6 of 60 Title: Fuel Reformer Catalyst And Absorbent Materials Applicant: Hampden-Smith et al.

Express Mail No.: EV338035435 US

Docket No.: 41890-01626

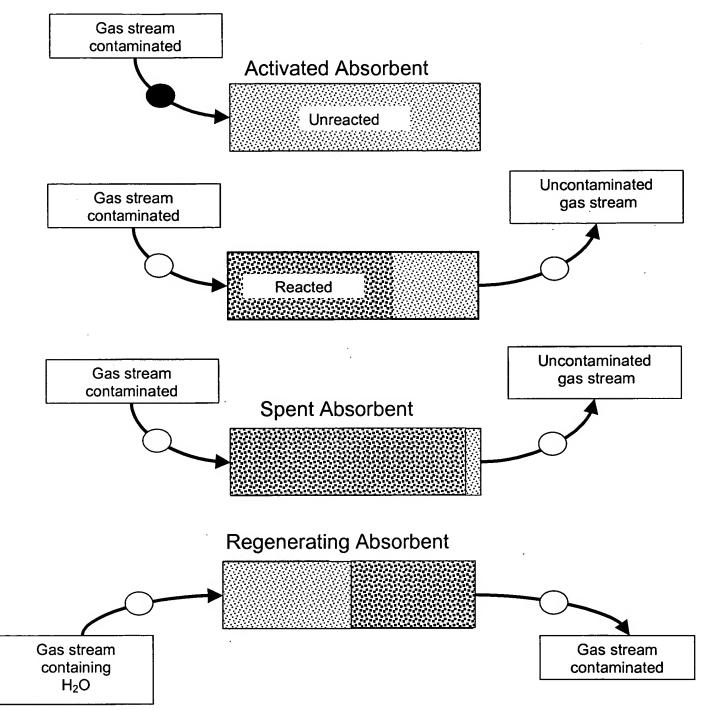
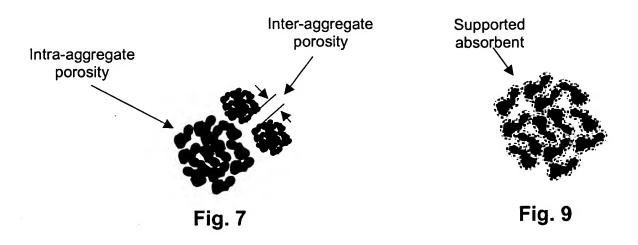


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Serial No.: Not Yet Assigned
Title: Fuel Reformer Catalyst And Absorbent Materials
Applicant: Hampden-Smith et al.

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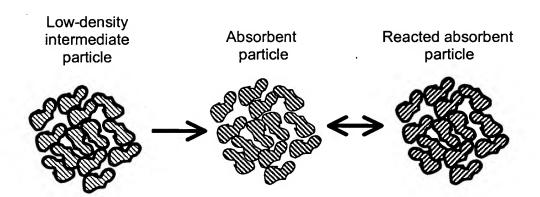


Fig. 10

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Docket No.: 41890-01626 Express Mail No.: EV338035435 US Attorney: David F. Dockery - Tel: (303) 338-0997 Mg - MgO $Al - Al_2O$ $\mathrm{Ca_{50}Al_{50}}$ $\mathrm{Ca_{50}Mg_{50}}$ $\mathrm{Ca_{90}AI_{10}} \ \mathrm{Ca_{90}Mg_{10}}$

Increasing concentration of inert component

Applicant: Hampden-Smith et al.

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Attorney: David F. Dockery - Tel: (303) 338-0997

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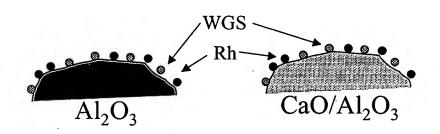


Fig. 11

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Title: Fuel Reformer Catalyst And Absorbent Materials

Applicant: Hampden-Smith et al. Docket No.: 41890-01626 Express Mail No.: EV338035435 US

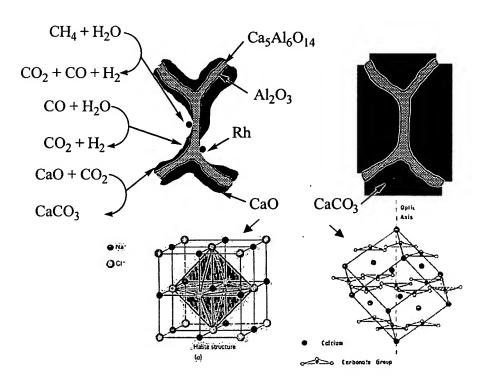


Fig. 12

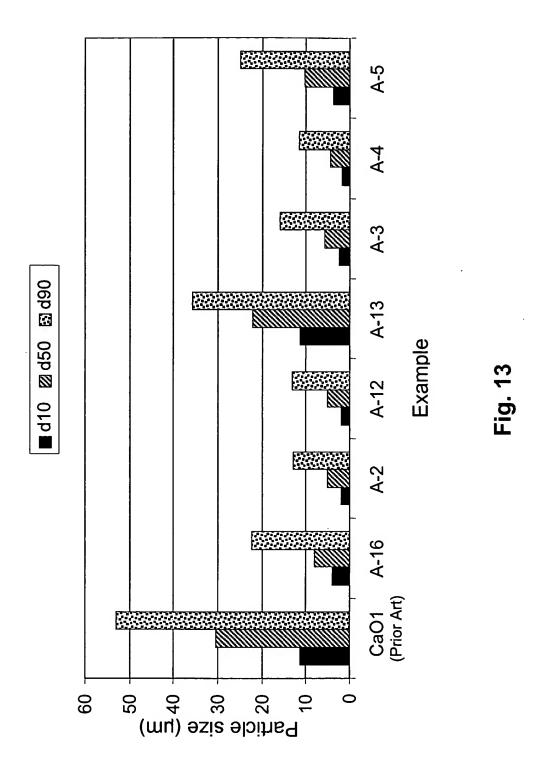
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Title: Fuel Reformer Catalyst And Absorbent Materials

Applicant: Hampden-Smith et al. Docket No.: 41890-01626

Express Mail No.: EV338035435 US

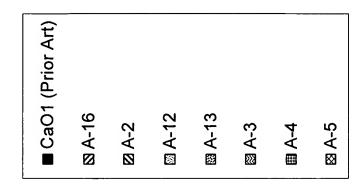


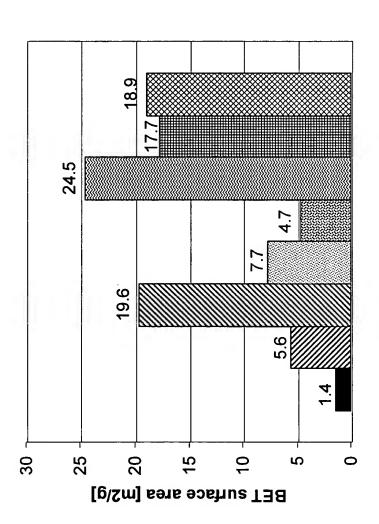
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Applicant: Hampden-Smith et al.

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Serial No.: Not Yet Assigned





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Title: Fuel Reformer Catalyst And Absorbent Materials
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Applicant: Hampden-Smith et al. Docket No.: 41890-01626

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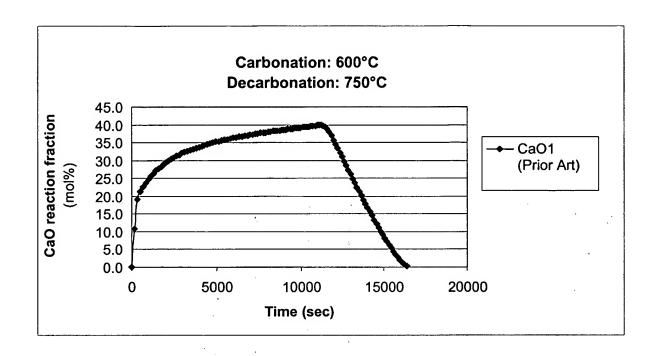


Fig. 16

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Title: Fuel Reformer Catalyst And Absorbent Materials

Applicant: Hampden-Smith et al. Docket No.: 41890-01626 Express Mail No.: EV338035435 US

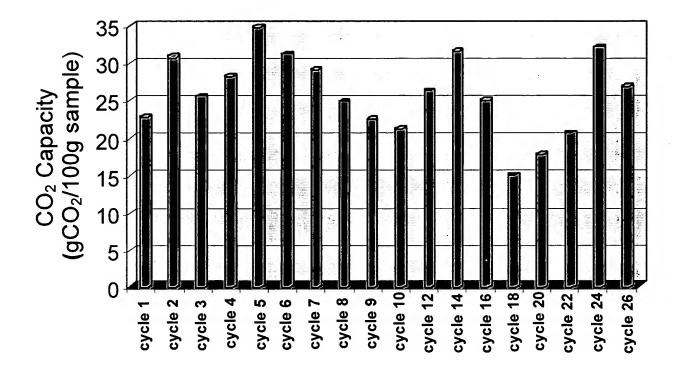


Fig. 17

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Title: Fuel Reformer Catalyst And Absorbent Materials

Applicant: Hampden-Smith et al. Docket No.: 41890-01626 Express Mail No.: EV338035435 US

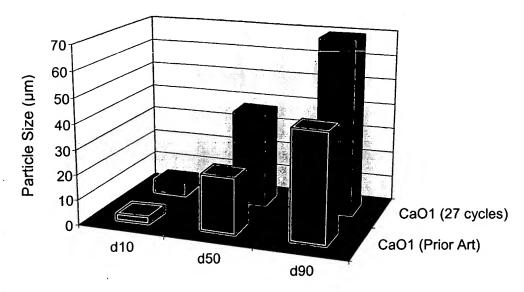


Fig. 18

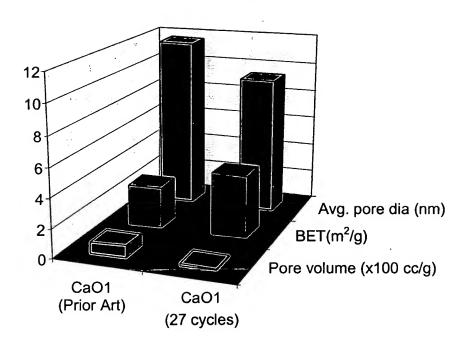
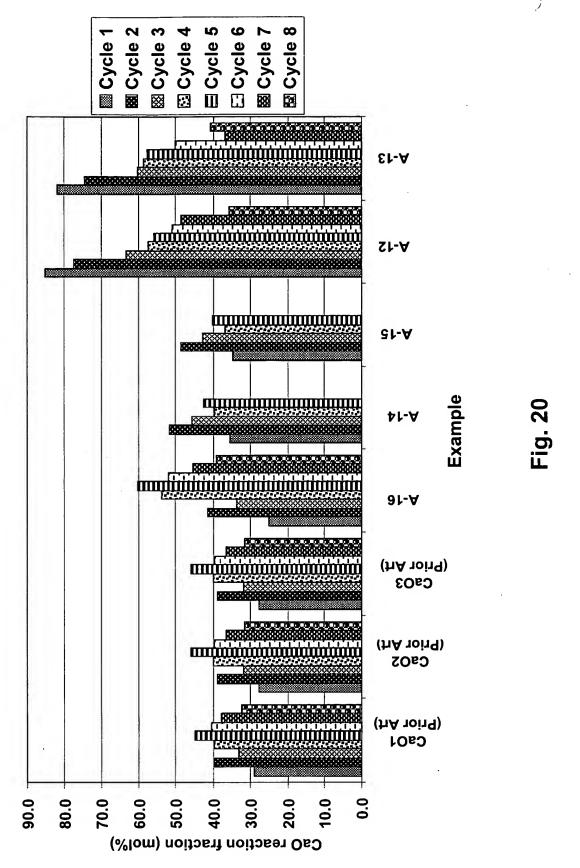


Fig. 19

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Title: Fuel Reformer Catalyst And Absorbent Materials

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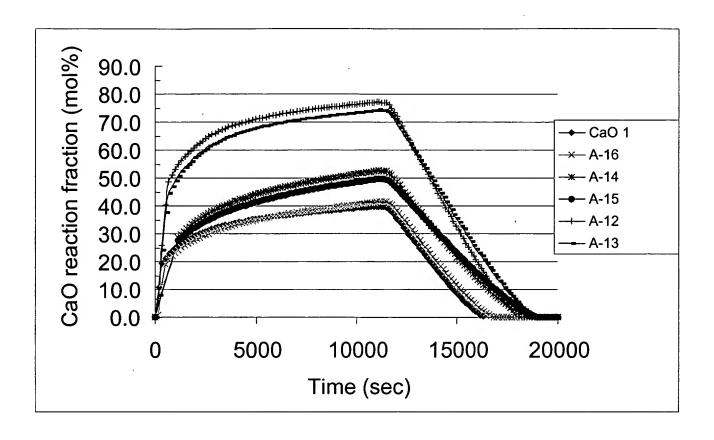


Fig. 21

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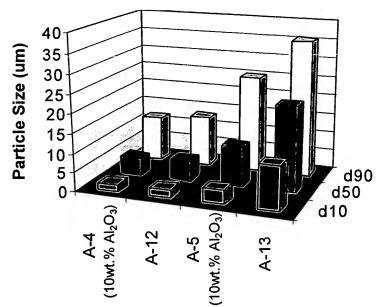


Fig. 22

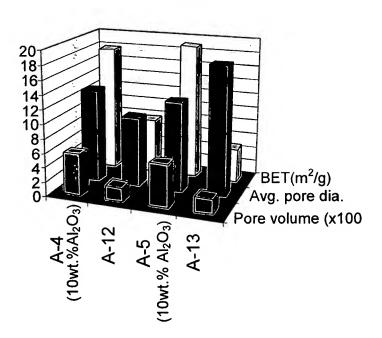
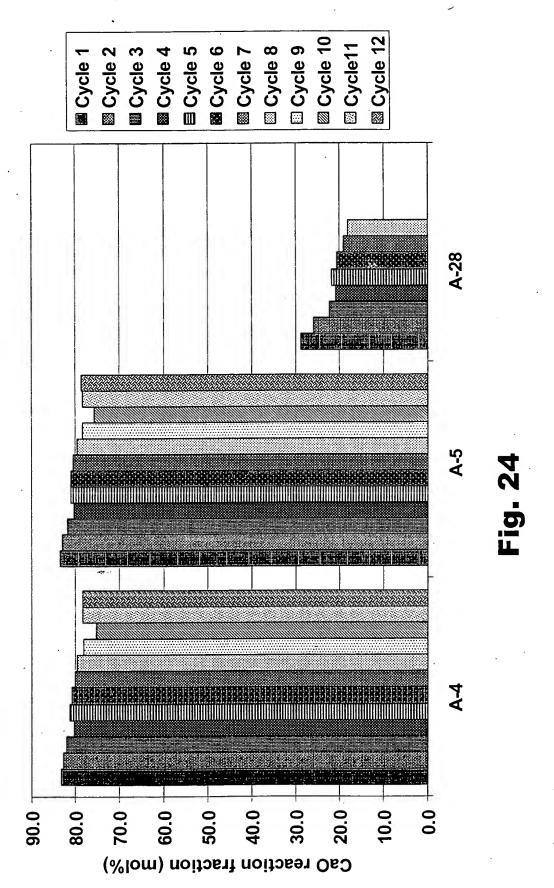


Fig. 23

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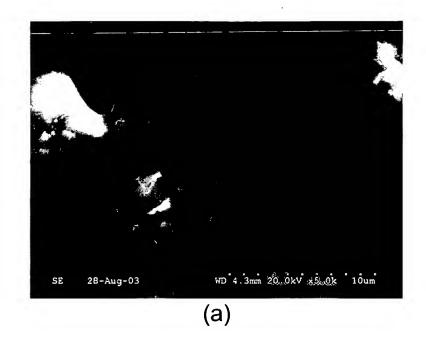
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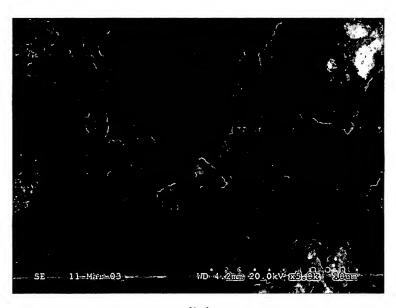
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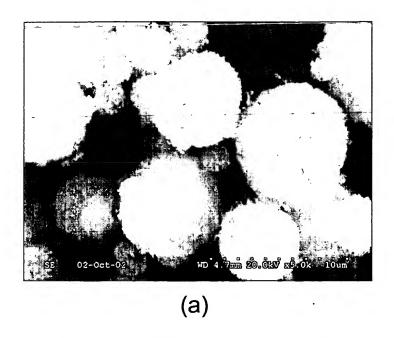


(b)

Fig. 25

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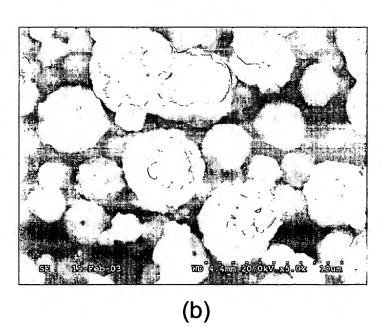


Fig. 26

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(a)

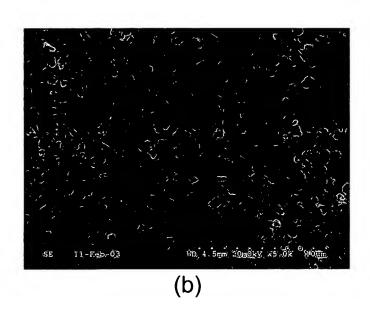


Fig. 27

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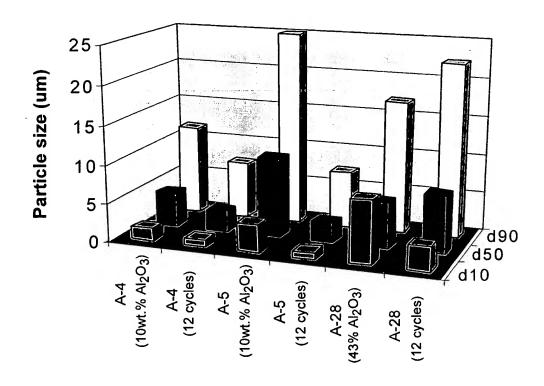


Fig. 28

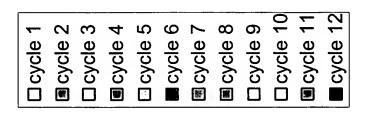
Serial No.: Not Yet Assigned

Title: Fuel Reformer Catalyst And Absorbent Materials

Applicant: Hampden-Smith et al. Docket No.: 41890-01626

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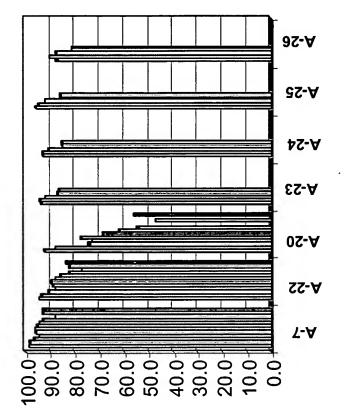


Fig.

CaO reaction fraction (mol%)

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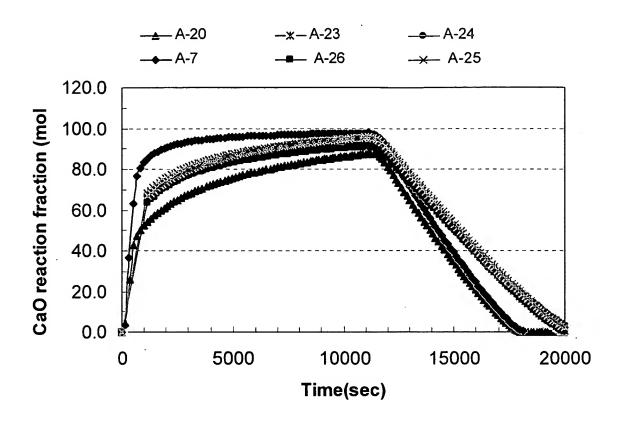


Fig. 30

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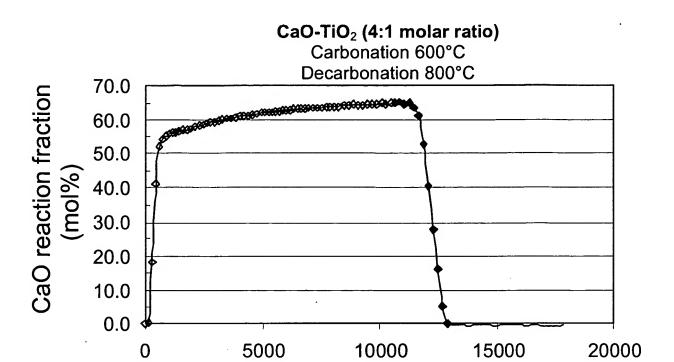


Fig. 31

Time(sec)

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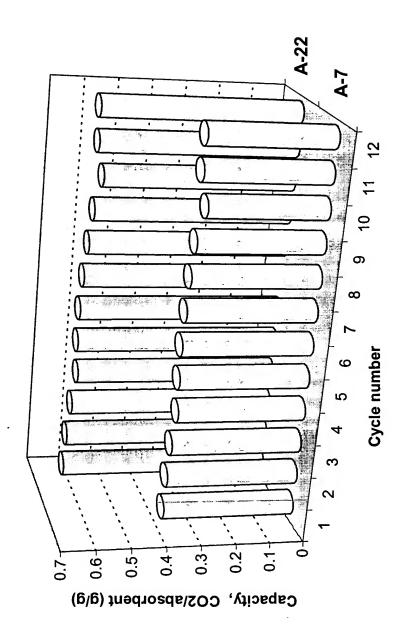
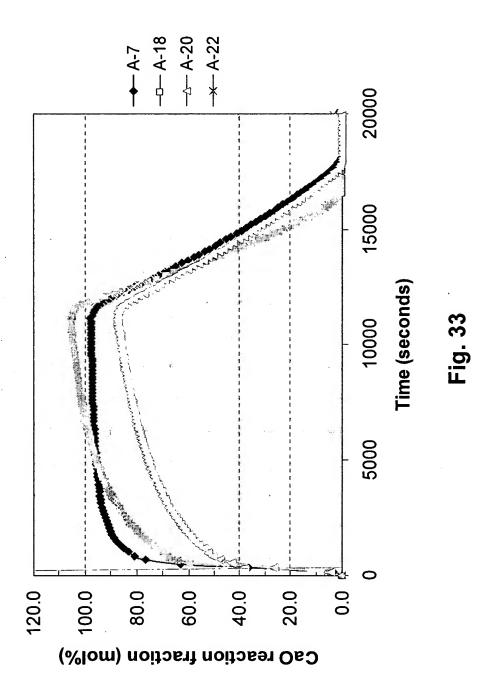


Fig. 32

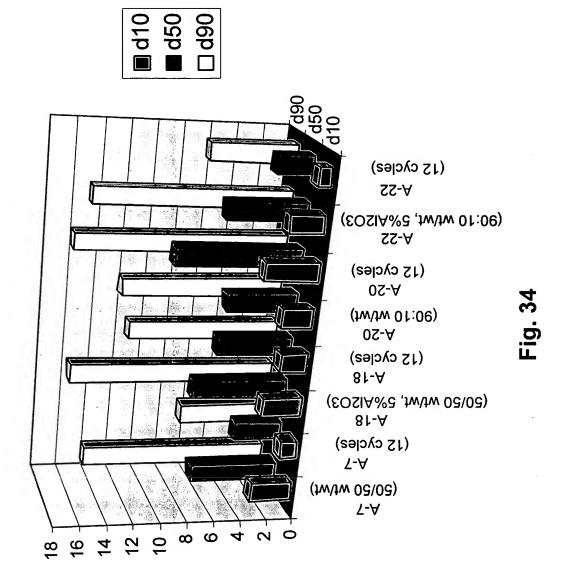
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Docket No.: 41890-01626

Express Mail No.: EV338035435 US Attorney: David F. Dockery - Tel: (303) 338-0997



Particle size (um)



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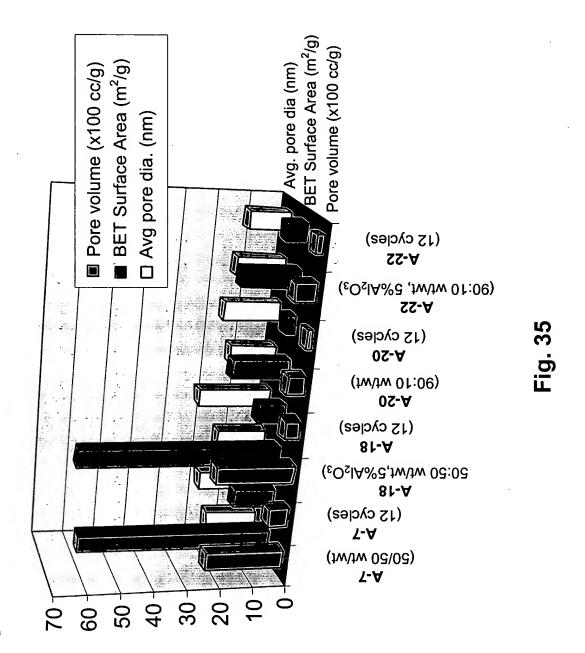
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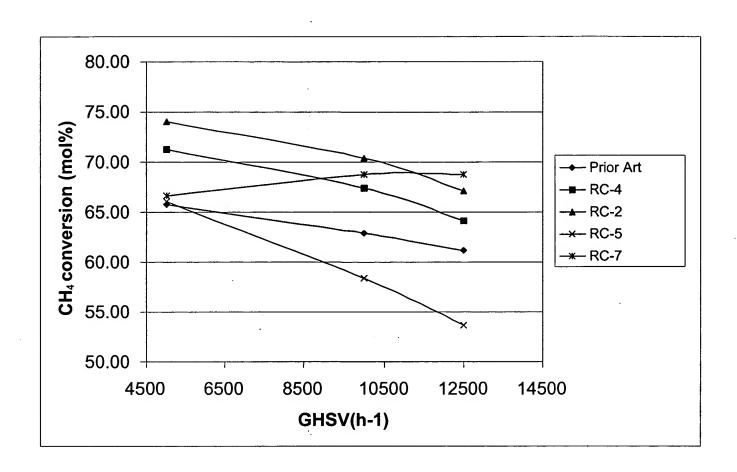


Fig. 36

Serial No.: Not Yet Assigned Title: Fuel Reformer Catalyst And Absorbent Materials Applicant: Hampden-Smith et al. Docket No.: 41890-01626 Sheet 33 of 60

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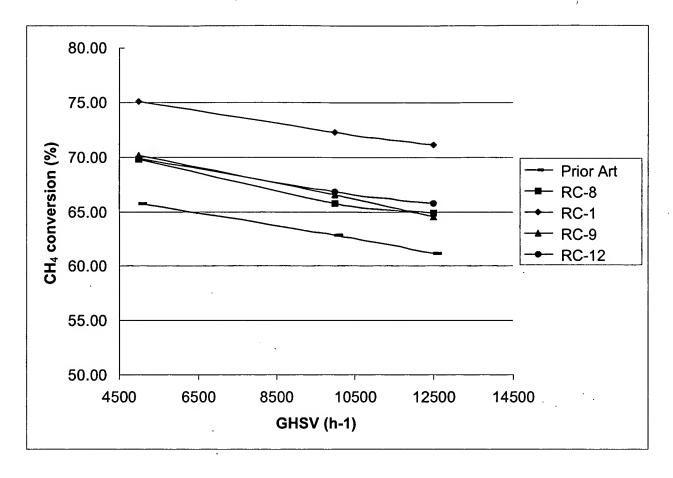


Fig. 37

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Title: Fuel Reformer Catalyst And Absorbent Materials
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Attorney: David F. Dockery - Tel: (303) 338-0997

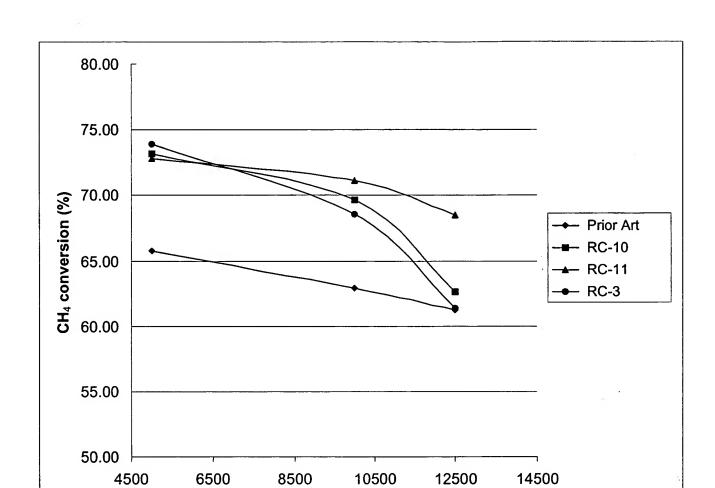


Fig. 38

GHSV(h-1)

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Title: Fuel Reformer Catalyst And Absorbent Materials
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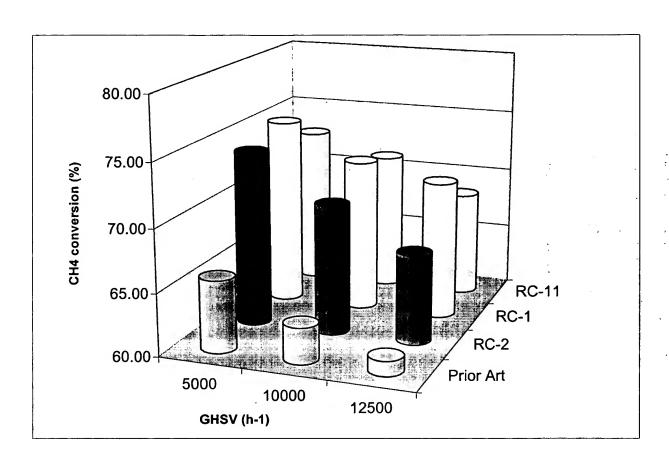


Fig. 39

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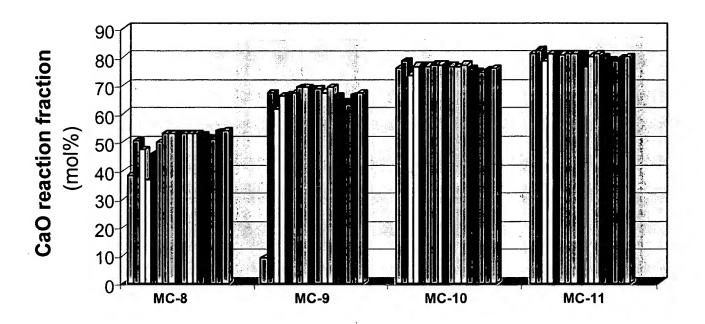


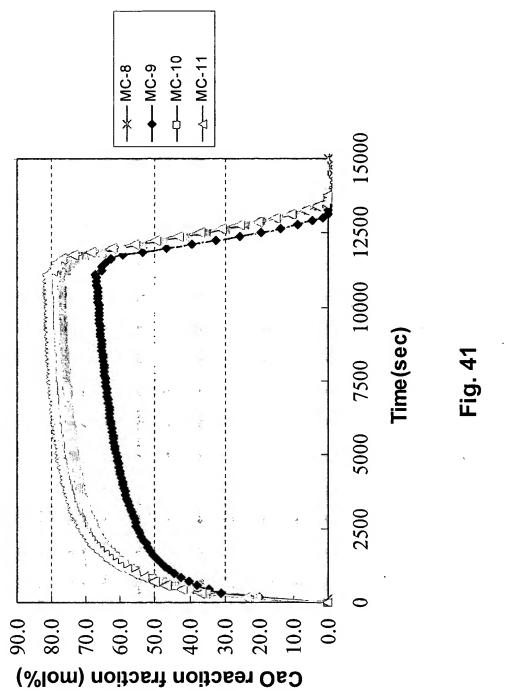
Fig. 40

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Applicant: Hampden-Smith et al.

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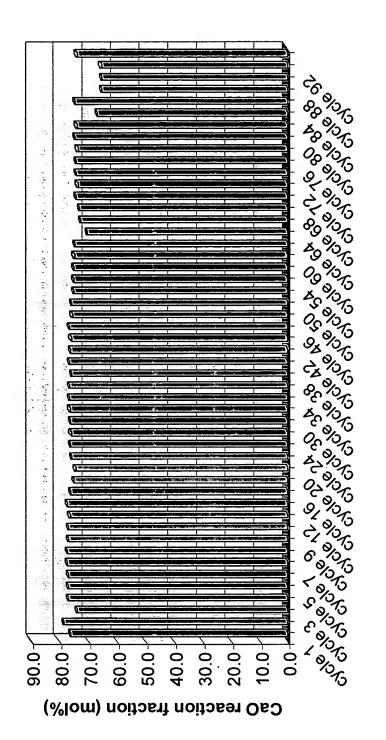
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Applicant: Hampden-Smith et al. Docket No.: 41890-01626 Express Mail No.: EV338035435 US

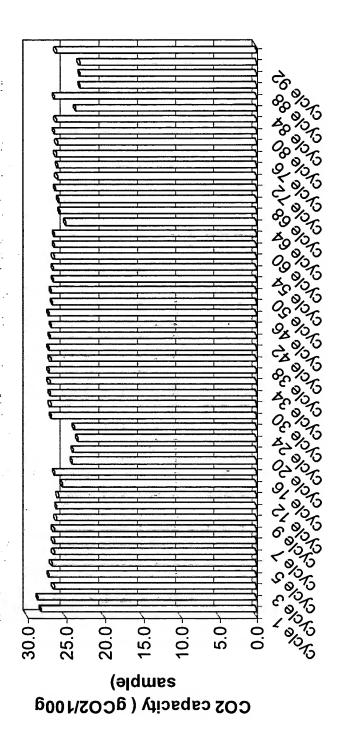
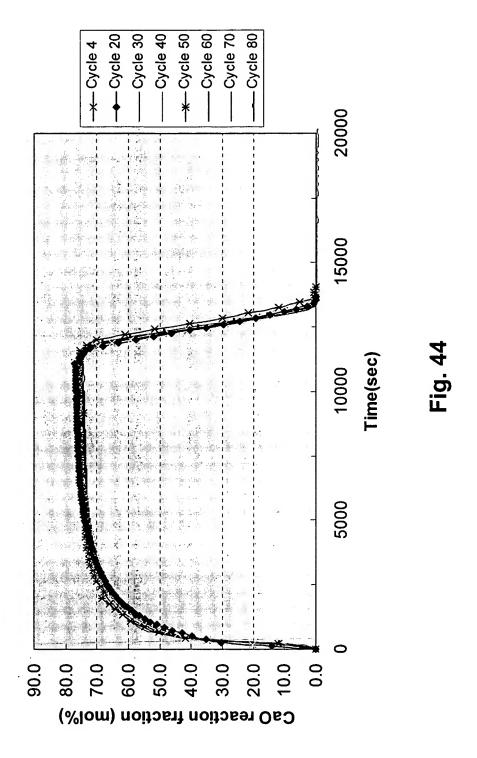


Fig. 4

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Applicant: Hampden-Smith et al. Docket No.: 41890-01626

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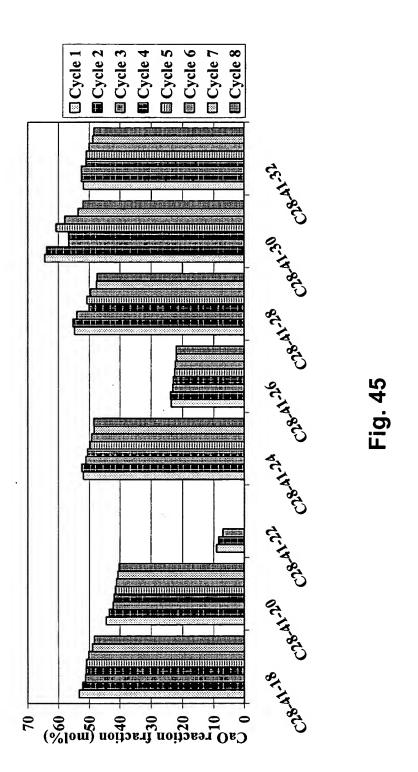
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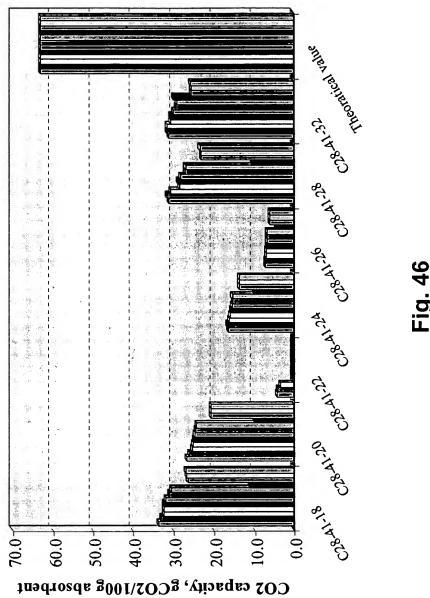
Applicant: Hampden-Smith et al. Docket No.: 41890-01626

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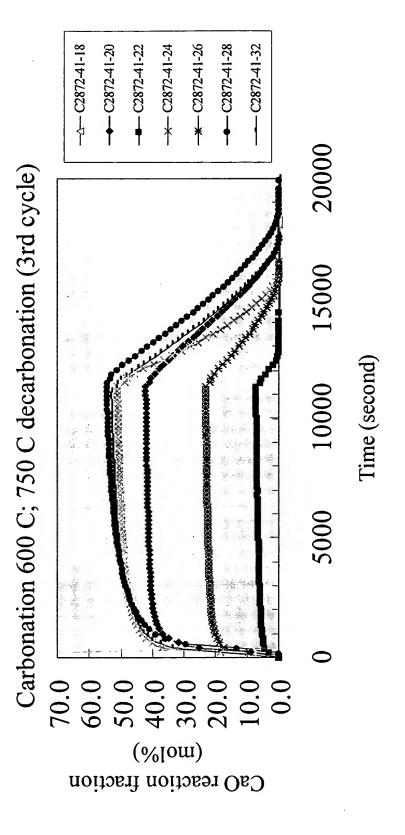


Fig. 47

Serial No.: Not Yet Assigned Title: Fuel Reformer Catalyst And Absorbent Materials

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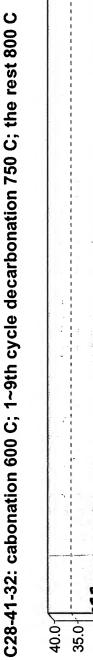
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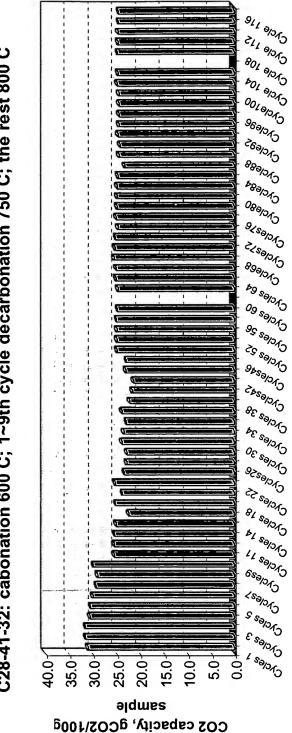
C28-41-32: carbonation 600 C; 1~9th cycle decarbonation 750 C; the rest 1000 AS AS OS AS O AS SOLOTO 65805 C30/5 S. Solder 6,000 18856 30.0 +20.0 10.0 60.0 50.0 40.0 (%Jow) CaO reaction fraction

Fig. 48

Serlal No.: Not Yet Assigned Title: Fuel Reformer Catalyst And Absorbent Materials

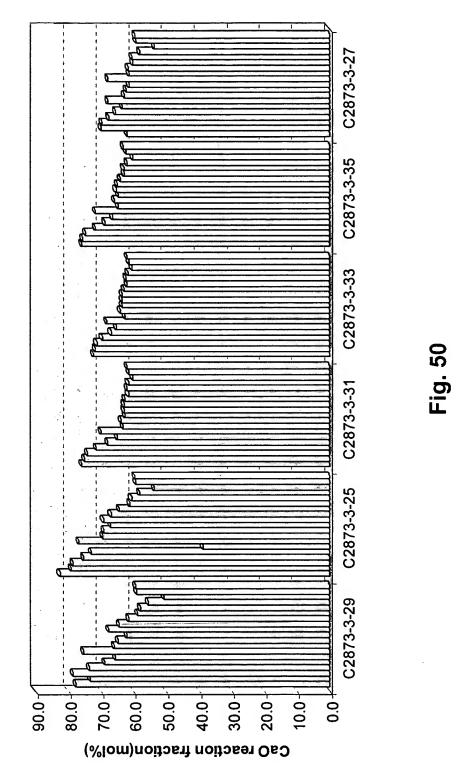
Applicant: Hampden-Smith et al. Docket No.: 41890-01626 Express Mail No.: EV338035435 US





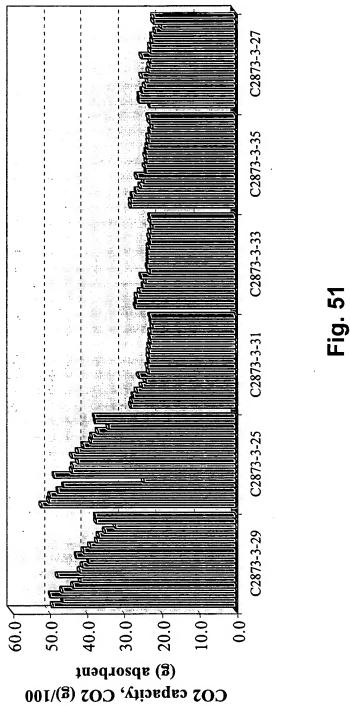
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Title: Fuel Reformer Catalyst And Absorbent Materials

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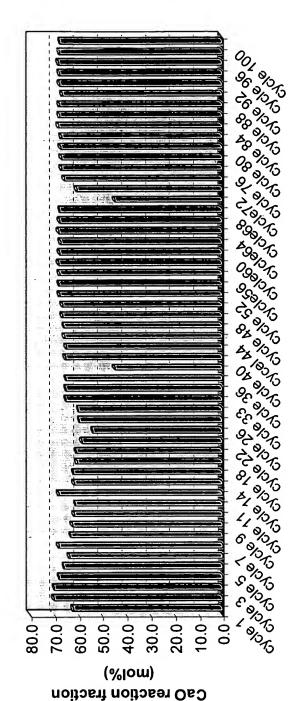


Fig. 52

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Express Mail No.: EV338035435 US

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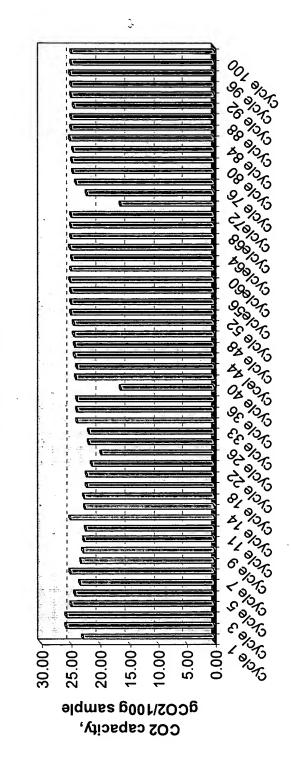


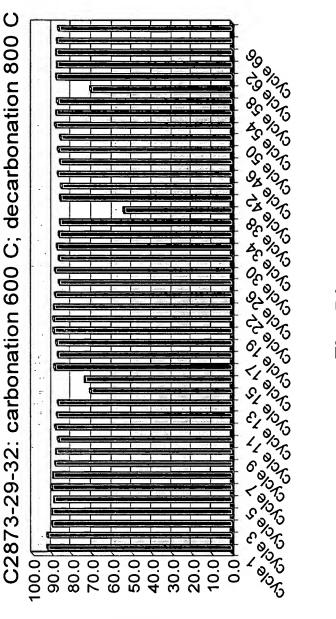
Fig. 53

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CaO reaction fraction (mol%)

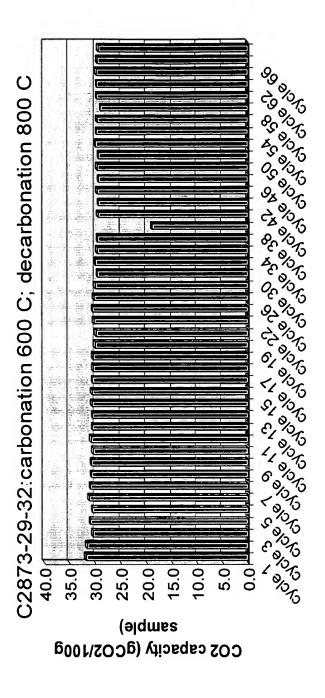
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Title: Fuel Reformer Catalyst And Absorbent Materials

Applicant: Hampden-Smith et al. Docket No.: 41890-01626

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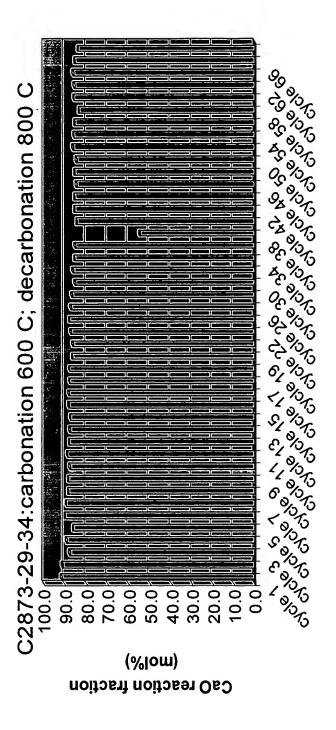


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Title: Fuel Reformer Catalyst And Absorbent Materials

Applicant: Hampden-Smith et al. Docket No.: 41890-01626

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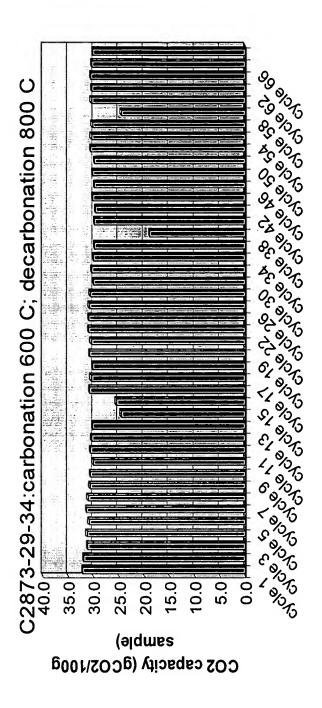


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Title: Fuel Reformer Catalyst And Absorbent Materials

Applicant: Hampden-Smith et al. Docket No.: 41890-01626 Express Mail No.: EV338035435 US

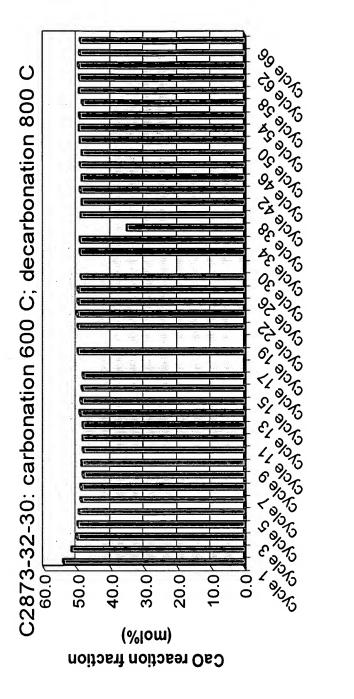


Fig. 58

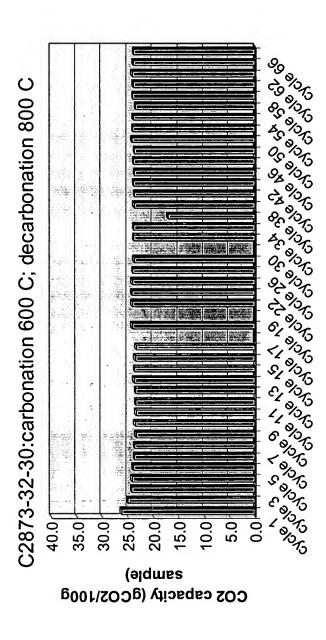
Serial No.: Not Yet Assigned

Title: Fuel Reformer Catalyst And Absorbent Materials

Applicant: Hampden-Smith et al. Docket No.: 41890-01626

Express Mail No.: EV338035435 US

Attorney: David F. Dockery - Tel: (303) 338-0997



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Title: Fuel Reformer Catalyst And Absorbent Materials

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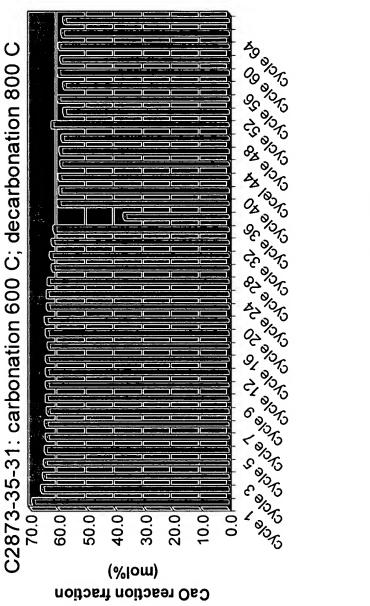


Fig. 60

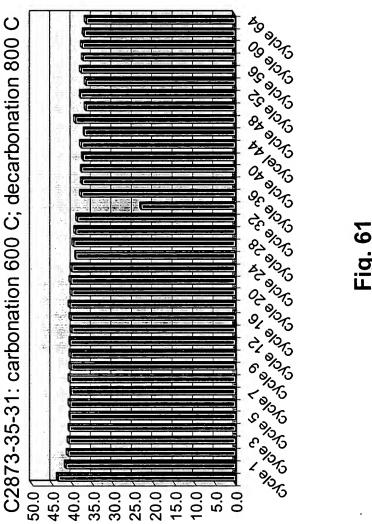
Serial No.: Not Yet Assigned

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Attorney: David F. Dockery - Tel: (303) 338-0997



CO2 Capacity (g CO2/100g sample)

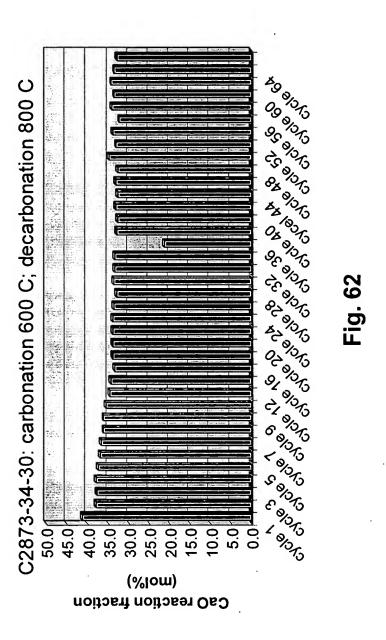
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Serial No.: Not Yet Assigned Title: Fuel Reformer Catalyst And Absorbent Materials Applicant: Hampden-Smith et al. Docket No.: 41890-01626

Express Mail No.: EV338035435 US Attorney: David F. Dockery - Tel: (303) 338-0997

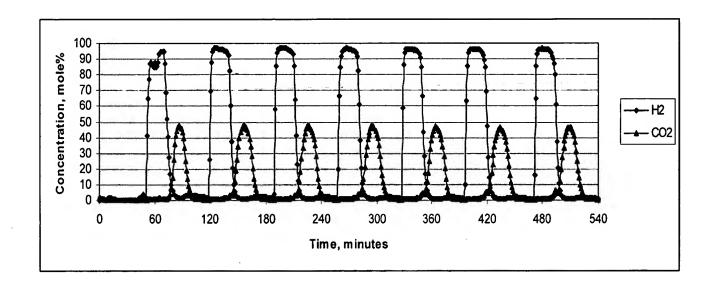


Fig. 63

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Title: Fuel Reformer Catalyst And Absorbent Materials

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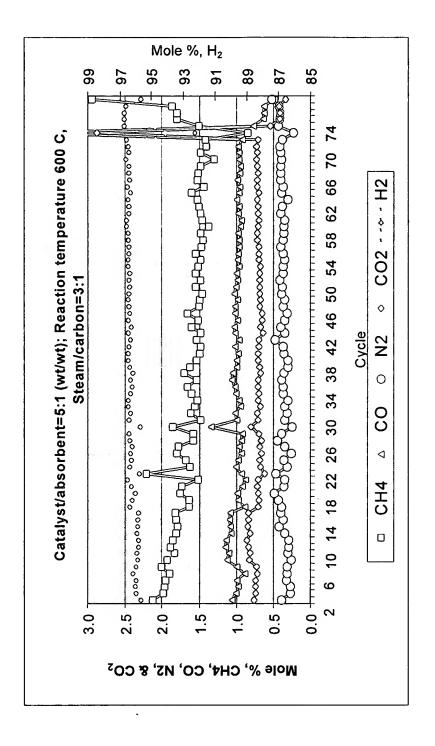


Fig. 64